

# APPLYING DIALECTIC TO ACQUISITION STRATEGY

***David L. Peeler, Jr.***

Dialectic is the process of reasoning correctly. In the era of downsizing the defense budget and streamlining the acquisition process, the application of dialectic to weapon system (acquisition) programs is critical. Unless programs are debated properly, all programs and defense activities stand to lose. Dialectic operates to expose the best in each program idea, creating a synthesis that optimizes the selected approach. This article explains the concept of dialectic and how its use can improve the acquisition process.

**K**nowledge, both theoretical and practical, is key to success. Acquisition strategy formulation is the process of addressing a problem; it is an event-driven, iterative process that attempts to answer questions that involve the possible combinations of options or approaches available to achieve a system's desired objectives, within particular limitations. An acquisition strategy attempts to answer the why, what, when, who, and how questions that have to do with obtaining a system. The problem inevitably has many potential solutions. The dialectic of Kant, Hegel, and others provides a framework for answering the aforementioned questions; it can yield better insight into the convoluted nature of the acquisition strategy process.

The decision maker, or more aptly the decision participant, must be aware of the theoretical underpinnings of the debates

in which he's engaged. This debate between approaches is known as dialectic. A theoretical understanding of dialectic by program managers (PMs) is crucial to the success of a program. The decision maker must understand the interplay and integration within a program and between it and others. Each aspect of an overall acquisition strategy is subject to question. Therefore, the PM must be ready to defend the program, in part or in total, in order to enhance the overall welfare of Department of Defense (DoD) acquisitions.

This goal is advanced solely through the give and take of debate. A dialectical approach yields a stronger solution to the overarching problem (i.e., the mission need [the why], as well as to the internal and external factors (the what, when, who, and how). Understanding the theoretical aspects of the necessary questions and issues, whose answers are integral to a suc-

<b>Report Documentation Page</b>			Form Approved OMB No. 0704-0188	
<p>Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p>				
1. REPORT DATE <b>1997</b>	2. REPORT TYPE	3. DATES COVERED <b>00-00-1997 to 00-00-1997</b>		
4. TITLE AND SUBTITLE <b>Applying Dialectic to Acquisition Strategy</b>		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Electronic Systems Center,Hanscom AFB,MA,01731</b>		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)		
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>				
13. SUPPLEMENTARY NOTES <b>Acquisition Review Quarterly, Spring 1997</b>				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>	18. NUMBER OF PAGES <b>8</b>	19a. NAME OF RESPONSIBLE PERSON

cessful acquisition strategy, provides a framework for improved practical applications.

The first theoretical presentation of the dialectic in Western thought occurred in Ancient Greece. Plato writes of Socrates's dialogue with Phaedrus in which the nature or essence of dialectic is examined. Although the notions of dialectic can be traced further back through Oriental works, our study will begin with its appearance in the Occident. Aristotle, in the *Topics* (370 B.C./1987), addresses the essence and existence of dialectic:

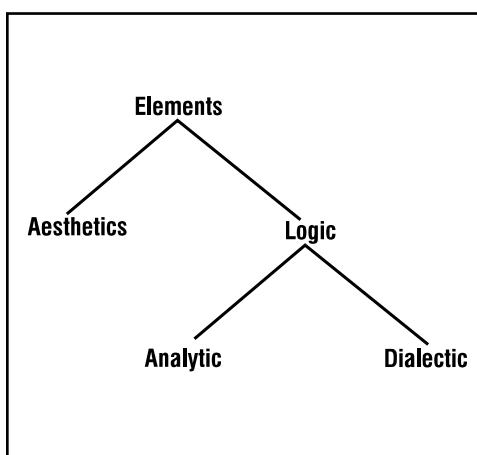
A dialectical problem is a subject of inquiry that contributes either to choice or avoidance, or to truth and knowledge, and that either by itself, or as a help to the solution of some other such problem. It must, moreover, be something on which either people hold no opinion either way, or the masses hold a contrary opinion to the philosophers, or the philosophers to the masses, or each of them among themselves.

Therein, Aristotle sets the stage for the modern, Western interpretation of dialectic; it is a problem involving opposing positions concerning the solution, either in part or total. As for the differentiation between the masses and the philosophers, recall that in Ancient Greece the Platonic

hierarchy established philosophers as the best-suited leaders—that is, the decision makers. This hierarchy was used throughout the literature of the time.

Socrates further stipulates that a good dialectician is able to divide things by classes or subjects “according to the natural formation, where the joint is, not breaking any part ....” (Plato, 350 B.C./1937). This skill requires knowledge of the *thing* in question. Thus, dialectic involves a conflict of ideas in the pursuit of a solution to a problem—a problem that must be familiar to the dialectician.

The notion of dialectic again surfaces in the philosophy of Immanuel Kant. In his *Critique of Pure Reason*, Kant identifies dialectic as a part of the hierarchy of reason (Figure 1).



**Figure 1. Kant's Hierarchy of Reason**

**Captain David L. Peeler, Jr.**, is currently assigned to Hanscom Air Force Base, Massachusetts, where he serves as a Weapon Systems Cost Analyst. He was selected as HQ AFSPC's Financial Services Officer of the Year for fiscal year 1994 and was named the 341st Missile Wing's Company Grade Officer of the Year for 1994. He earned a Master of Science degree in Cost Analysis from the Air Force Institute of Technology in 1996. He is a Certified Cost Analyst and a Certified Acquisition Professional, Financial Management—Level I.

Kant's aesthetics involves the senses while logic encompasses intellect; the further division of logic—into analytic and dialectic—is concerned with understanding and refined reasoning, respectively (Bennett, 1974). The aesthetics have minimal, direct influence on the dialectic but play a role in the overall “scheme of things.” The analytic addresses actually agreed upon “fact”—Karl Popper notwithstanding.<sup>1</sup> For example, water freezes at 32°F; the molecular structure of water is H<sub>2</sub>O. Argument about these “facts” is vacuous because it is determined by observation. Dialectic isn’t established by experiment or observation, but through the negativism of ideas (Weaver, 1953):

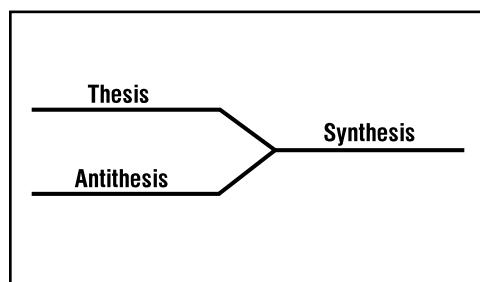
...we can therefore say that a dialectical position is established when its relation to an opposite has been made clear and it is thus rationally rather than empirically sustained.

The actuality is not what “dialectic secures for any position...but possibility...” (Weaver, 1953). The analytic represents the actual; this is determined by examination. The dialectic is more elusive; while the analytic addresses agreed-upon facts, dialectic deals with the realm of interacting possibilities available for deriving solutions to a problem.

Hegel built his system upon Kant’s concept. Hegel maintained that dialectic has a negative character which “constitutes the genuine dialectical procedure” (Hegel, 1929). This “...negativity is manifest in the very process of reality, so that nothing that exists is true in its given form. Every single thing has to evolve new conditions and forms if it is to fulfill its potentialities” (Marcuse, 1954). The negative is

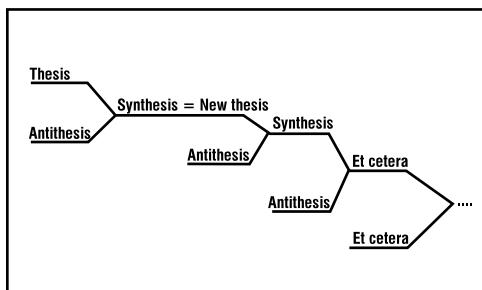
manifested as the antagonist of the positive in a given solution—the positive being the existing proposition or idea. The negative acts as the devil’s advocate in the proposed solution. The notion of dialectic therefore cannot be put in a single, correct proposition that has a claim to the essence of the problem or its solution.

No one approach to a problem exists, but solutions are governed by the creative power of contradiction. These contradictions or conflicts of ideas are intertwined in the process of reaching a solution. The conflict is no longer between opposing forces but becomes one between antagonistic forms of reality that coexist (Marcuse, 1954). Using Hegel’s concept of triadic development, the dialectic forms the essence of the debate. This form is represented in its simplest state in Figure 2.



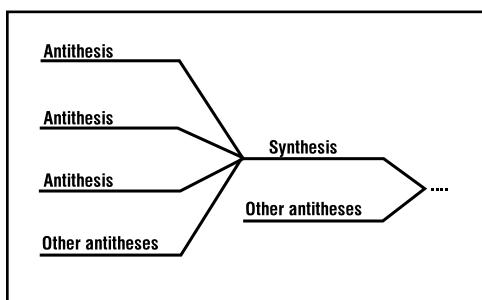
**Figure 2. Hegel’s Simple Dialectic**

The thesis is contradicted (negated) by an antithesis with the ensuing conflict between the two producing a higher level (improved) concept, the synthesis. The positive (thesis) is opposed by the negative (antithesis), producing a superior synthesis. The best of both the positive and the negative form an improved idea. In a more complicated view, the synthesis becomes the thesis and the iterative process continues to evolve (Figure 3). The pro-



**Figure 3. More Complicated View of Hegel's Dialectic**

cess becomes even more complex with more than one simultaneous antitheses (Figure 4).



**Figure 4. Complex: Simultaneous Antitheses**

The evolution of this process is relevant to acquisition strategy. As one strategy component is proposed, others vie for predominance. The conflict of ideas throughout the acquisition strategy process is a dialectical exercise.

Practical application of the laws of reason (dialectic) are inherent in the evolution of the general development of an acquisition strategy. This evolution occurs through an iterative process to create a increasingly effective strategy. The iterative incorporation and integration of co-existent, alternative approaches produce a new synthesis. Each synthesis is met with opposing forces that perpetuate fur-

ther syntheses, thus improving the acquisition process.

The theoretical laws of reason as summarized above are applicable to all aspects of an acquisition strategy. Dialectic is present in the give and take between DoD and Congress. "Every new solution presents a whole new set of problems" (L'Heureux and Grant, 1996). Each problem must evolve through the dialectical process to arrive at a viable, successful acquisition.

Acquisition policy, external environment, and program-specific factors are the three strata of acquisition strategy dia-grammed in the text. All three of these make use of dialectical facets, involving choices that must be broken down, as expressed by Socrates, and dealt with in order to continuously improve the outcome of the process. Policy is established through the give and take of conflicting ideas. Formulation of policy, the definition of its criteria, and the development of a strategy are nothing more than choices between the best component parts articulated by the participants. Each thesis yields to the superior ideas included in its antithesis. The resulting synthesis is composed of the *best* of the opposing postulates.

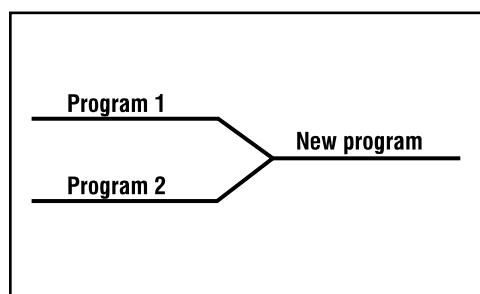
Included within an acquisition strategy's external environment are the complex aspects of congressional oversight, exploitation of technology, existence of an industrial base, joint and international strategies, and strategies for competition (L'Heureux and Grant, 1996). All these, save the latter, are subject to the same coexistence of competing ideas that drive the resultant solutions; each are made up of conflicting proposals that contain good and less than... components.

The best aspects are taken from each proposal. Competition is less a factor of dialectic and more of an analogous concept. The concept of Adam Smith's "invisible hand" refers to the competition between alternatives with the result being a better solution. Economic competition thus becomes somewhat synonymous with dialectic; they have the same essence. However, this essence isn't as easily manifested in major weapon system or automated information system acquisitions.

The essence of competition involves an environment with relatively few rules and regulations; easy entry and exit into the marketplace, a large number of firms, a homogeneous product, and complete information concerning prices, quality, and production. The market surrounding weapons system (or any major government systems) acquisition does not fit the competition model. Our marketplace can be regarded as a monopsony (one buyer) purchasing from a duopoly (two or few sellers).<sup>2</sup> Therefore, the essence of dialectic is not obvious in acquisition contract competition. However, dialectic in the acquisition process, from conception to realization, is essential for the evolution of improved systems. This continuous improvement allows for the optimization of resources and mission performance capability.

The specific factors involved in an acquisition strategy program are all subject to the reasoning process—the dialectic. These factors include the master program; contracting, manufacturing, supportability, test and evaluation, and "high gear" program strategies; commercial off-the-shelf (COTS) and nondevelopmental items (NDI); and risk assessment (L'Heureux and Grant, 1996). Each of these factors involve the application of

dialectic, showing that the laws of reason are at work *within* the structure of an acquisition strategy as well as at the upper echelons of policy formulation. The PM becomes a dialectician on two levels: He is the arbitrator between the masses within the program, determining which aspects of competing ideas to incorporate, and he becomes the program's advocate vis-à-vis the "philosophers" or between them. The PM must defend the program as it is placed in competition with others. He *must* become an advocate in order to ensure that the best pieces of each program are advanced and synthesized into the overarching framework of providing the strongest possible national security.



**Figure 5. Program Dialectic**

The PM must be cognizant of the fact that his program has good aspects that improve the outcome of the competition.<sup>3</sup> If he immediately sacrifices his program when faced with resource reductions, the function of dialectic is frustrated. Beneficial ideas will be lost that would otherwise survive to flourish in the resultant, synthesis program. If the PM doesn't fight for the program, the defense of the nation suffers. This truism is likewise applicable for those working on the program. They must defend their ideas for the program in order to improve it.

The acquisition strategy process is a functionally operating, continuous evolution of thesis, antithesis, and synthesis. Once each conflict has been resolved into a synthesis, a new antithesis emerges. So the process continuously generates improved options for the solution of a problem. The iterative evolution occurs through dialectic. The dialectic process places potential solutions into conflict,

producing an improved combination of options or approaches used to achieve the desired objectives of a program within specified resource constraints. If every PM becomes an effective and active dialectician rather than a *de facto* one, the theoretical aspects of dialectics will improve the practical application and execution of acquisition strategy.

## **REFERENCES**

---

Aristotle. (1987). Topics. W. D. Ross (Trans.). Chicago: Encyclopaedia Britannica (104b). (Original work dates from 370 B.C.)

Bennett, J. (1974). Kant's dialectic. Cambridge, U.K.: Cambridge University Press (p. 1).

Hegel, G. W. F. (1929). The science of logic (W. H. Johnston & J. G. Struthers, Trans.) (p. 66). New York: Macmillan.

L'Heureux, R. Z., & Grant, K. P. (Eds.) (1996). Defense acquisition strategy: Development & execution (pp. 9–15). Unpublished text used at the Air Force Institute of Technology, Air University, Air Education and Training Command, Wright-Patterson Air Force Base, Dayton OH.

Marcuse, H. (1954). Reason and revolution: Hegel and the rise of social theory (pp. 123, 150). New York, Humanities Press.

Plato. (1937). Phaedrus. In B. Jowett (Trans.) The dialogues of Plato (265a). New York: Random House. (Original dates from 350 B.C.)

Weaver, R. (1953). The ethics of rhetoric (p. 27). South Bend, IN.: Regnery/Gateway.

## **END NOTES**

---

1. Karl Popper maintained that the verification of universal scientific statements is impossible. Verification would require confirmation of all instances through time and universe. The scientific method cannot accommodate this verification process; therefore, we seek falsifying instances that provide one example that the statement is not universal. Kant's analytic suggests that observation connotes fact. Popper would insist that simple observation does not prove scientific universality (*i.e., the speed of light in a vacuum or the freezing point of water.*)
2. Although the evolving acquisition process now emphasizes the use of commercial off-the-shelf (COTS) products, for which there are multiple manufacturers, contracts are still awarded as before. Lacking the necessary expertise to integrate the various components that make up a system, the government contracts with one firm to perform this function. The number of firms capable of performing the integration function is, if anything (with the current rate of mergers and buyouts), diminishing. Therefore, the monopsony/duopoly relationship between the government and contractors continues to hold as acquisition methods evolve. COTS products are procured through prime contractors, of which there are relatively few for each acquisition area, who integrate the system and "load" the price.
3. The natural tendency of a reader is to surmise that the chosen example program is sufficiently dissimilar to his to exclude use of the example's processes. But, the dialectic is generic and applies to all processes and projects. A specific program is not discussed here to eliminate the tendency of readers to discount the premises because this or that element wasn't or isn't present in his program. The process of debate over aspects present in any program is what a program manager needs to contemplate, not the analogous nature of a particular program to the example.